

REDUCING ACTUATOR ARM OSCILLATION DURING SETTLE MODE IN A DISC DRIVE SERVO SYSTEM

Abstract of the Disclosure

- 5 An apparatus and method for compensating actuator arm oscillation induced by resonance mode excitation during a seek in a disc drive data handling system. The actuator arm supports a head adjacent a recording surface, and a servo loop controls the position of the actuator arm. A frequency of actuator arm oscillation is identified, after which a seek is initiated to move the head from an initial track to a destination track on the recording surface.
- 10 A position error signal (PES) is generated to indicate position of the head relative to the destination track, and a compensation signal is generated by a filter based on the PES and the frequency of oscillation of the actuator arm. The compensation signal is adapted to remove a component of the PES arising from the actuator arm oscillation, and is applied to the servo loop as the head is settled onto the destination track.